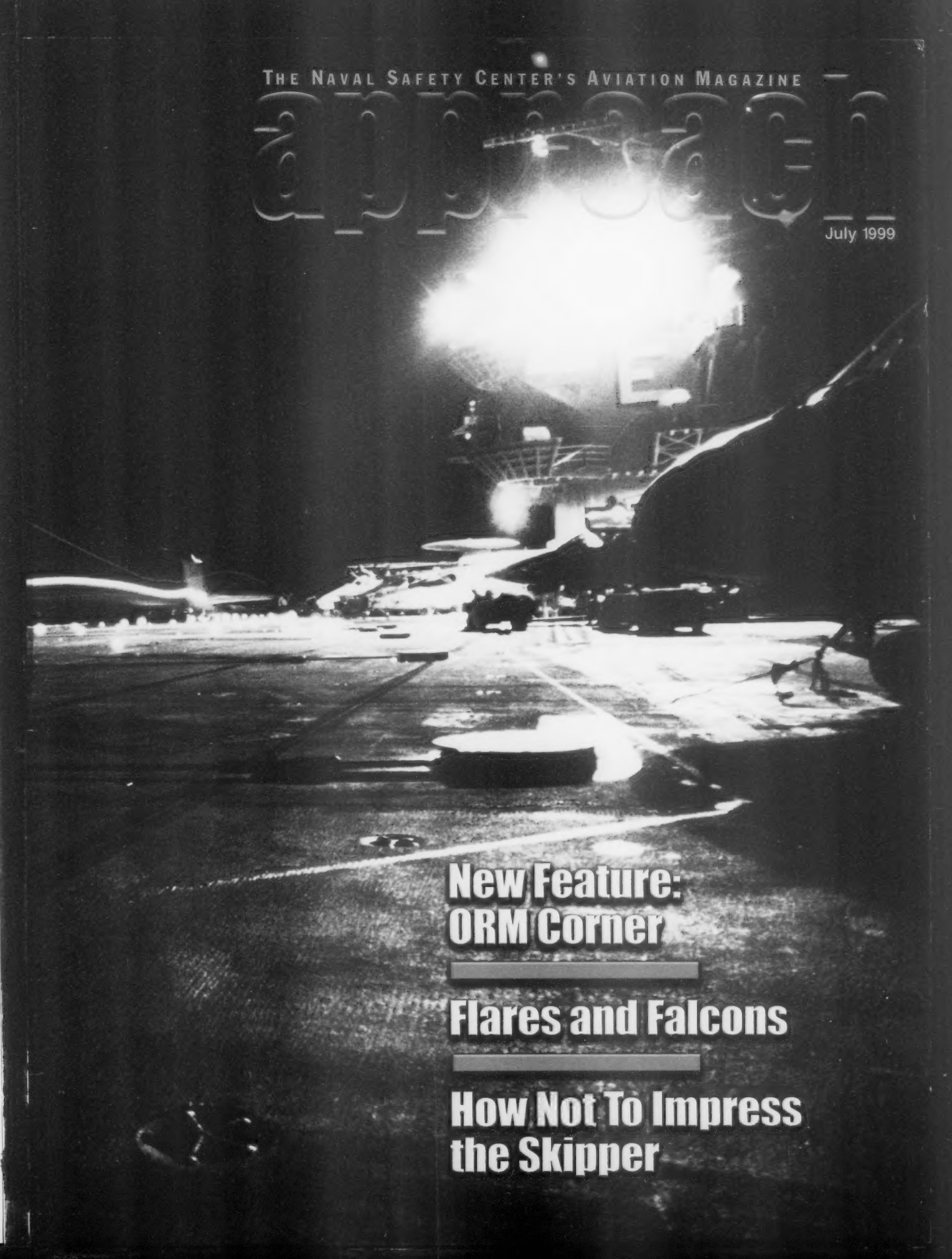
THE NAVAL SAFETY CENTER'S AVIATION MAGAZINE

approach

July 1999



New Feature: ORM Corner

Flares and Falcons

How Not To Impress the Skipper

inside approach

The Naval Safety Center's Aviation Magazine
July, 1999 Volume 44, No. 7
On the Cover Night recovery on board USS *Enterprise*. (Photo by PH2 Michael W. Pendergrass)

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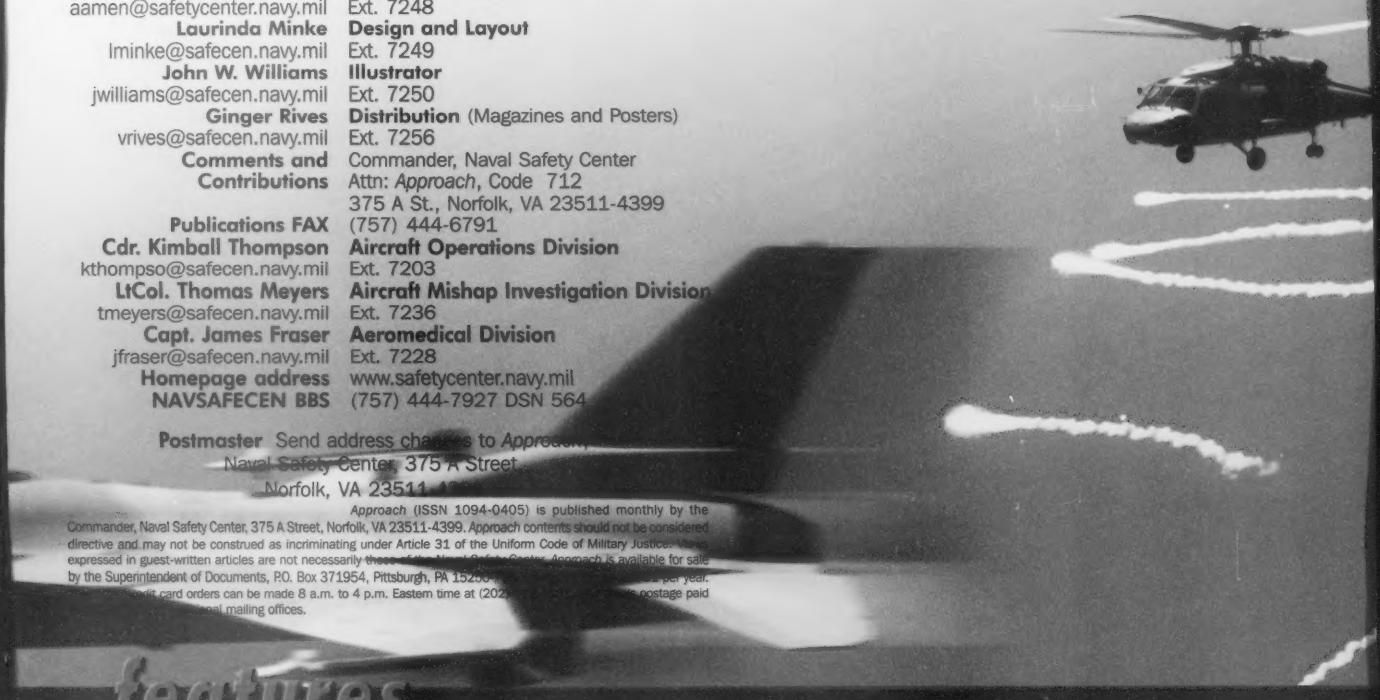

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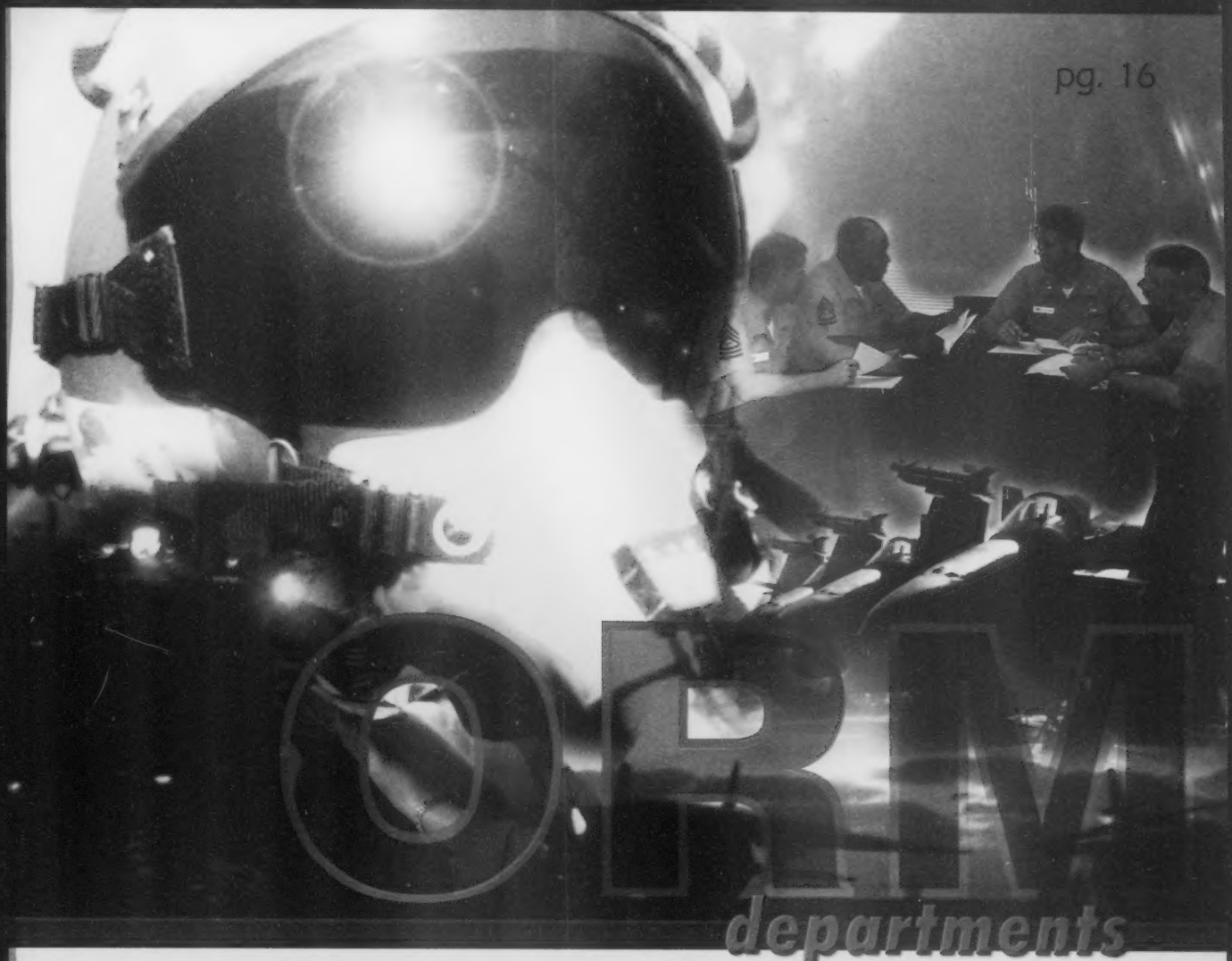

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Classic

March 1988

Flares and Falcons

by LCdr. Patrick Grady

THE ENGINEERS ON THE SHIP HEARD A thumping sound on one of the screws. The usual procedure would be to lock the shaft and head toward port single shaft, except this ship was en route to Inchon. Entering Inchon on a single shaft is dicey because the water rises 20 feet between low and high tide. Add a high-wind advisory, and the Inchon port arrival became increasingly hazardous.

The captain wanted divers flown to the ship to check the shaft. I said we could support that mission. We had to deal with the ship-to-shore transit distance, the no-passengers-at-night restriction, and the fact that the divers were Korean. We also needed a foreign-embarkation authorization from Seventh Fleet. I told the captain we would need either English-speaking divers or a translator so they could understand my crewman's passenger brief.

I felt that the hardest part of the operation would be for the ship to satisfy all these administrative requirements. Once these requirements were met, it would be an easy day. The detachment had a very good relationship with the ship, and I was gung ho to support my operational commander.

I was reluctant to file an IFR flight plan, so I decided to file a VFR flight plan. The IFR airways in Korea seemed to rely heavily

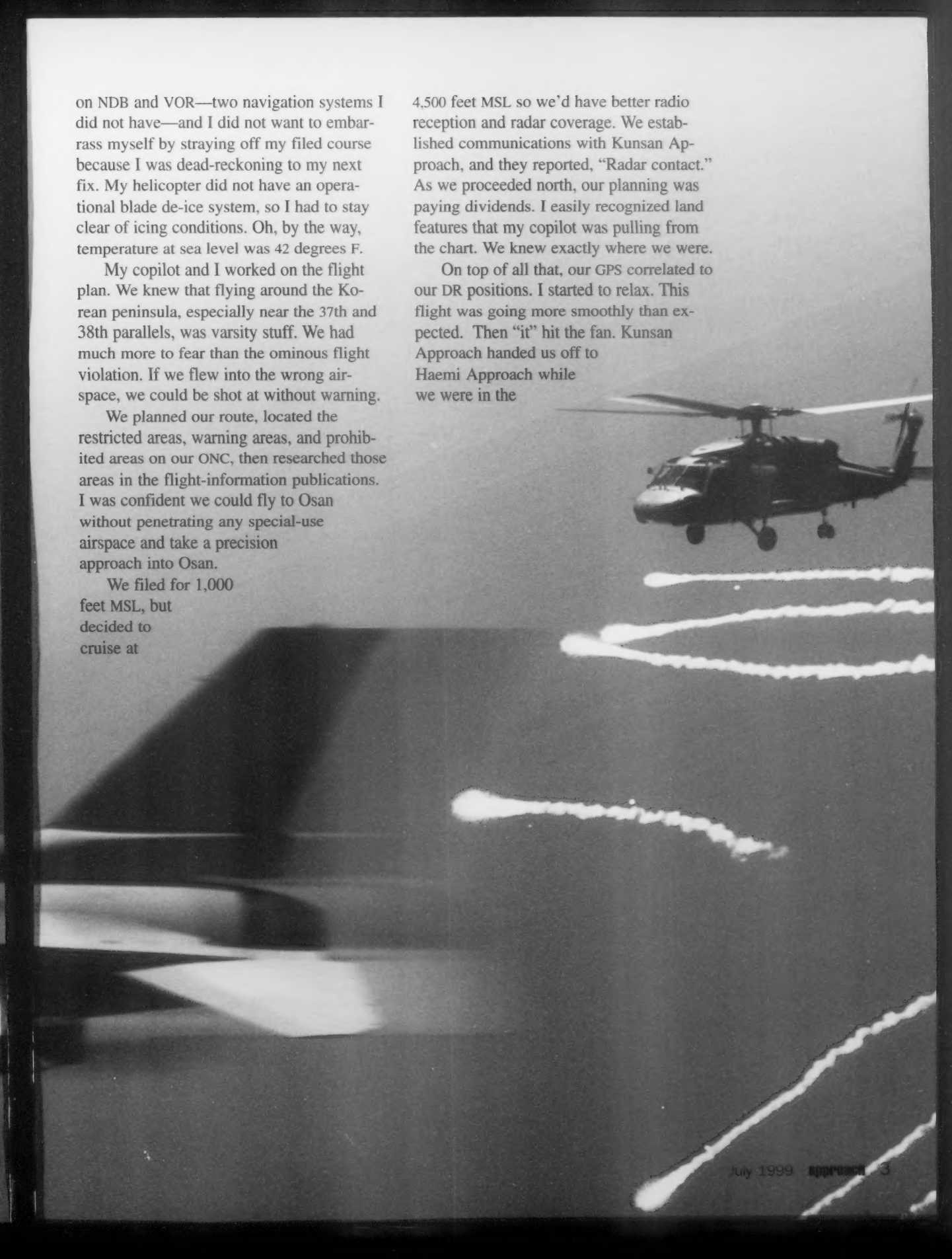
on NDB and VOR—two navigation systems I did not have—and I did not want to embarrass myself by straying off my filed course because I was dead-reckoning to my next fix. My helicopter did not have an operational blade de-ice system, so I had to stay clear of icing conditions. Oh, by the way, temperature at sea level was 42 degrees F.

My copilot and I worked on the flight plan. We knew that flying around the Korean peninsula, especially near the 37th and 38th parallels, was varsity stuff. We had much more to fear than the ominous flight violation. If we flew into the wrong airspace, we could be shot at without warning.

We planned our route, located the restricted areas, warning areas, and prohibited areas on our ONC, then researched those areas in the flight-information publications. I was confident we could fly to Osan without penetrating any special-use airspace and take a precision approach into Osan.

We filed for 1,000 feet MSL, but decided to cruise at 4,500 feet MSL so we'd have better radio reception and radar coverage. We established communications with Kunsan Approach, and they reported, "Radar contact." As we proceeded north, our planning was paying dividends. I easily recognized land features that my copilot was pulling from the chart. We knew exactly where we were.

On top of all that, our GPS correlated to our DR positions. I started to relax. This flight was going more smoothly than expected. Then "it" hit the fan. Kunsan Approach handed us off to Haemi Approach while we were in the



vicinity of Restricted Area (RK) R111. As we called Haemi, the radios exploded with unintelligible Guard transmissions. Unable to decipher these transmissions, we continued to press.

I looked through the chin bubble and saw a slow-moving fixed-wing aircraft way beneath us.

I thought, "Gee, I wouldn't have thought there would be much civil aviation in Korea."

Right then, the crewman in the back reported we had an F-16 at our nine o'clock inbound. The crewman kept providing updates.

As the Falcon closed, the urgency in our crewman's voice increased. My copilot saw the Falcon and added his own urgency to the situation. At this point, both the copilot and aircrewman reported the Falcon had fired flares. As I watched the Falcon cross my nose, I could see my career-dissipation and mortality lights on high. The jet was within 100 feet of me. My copilot said he could see the Falcon pilot's helmet-tape pattern.

I turned to follow and began my descent. After 90 degrees of turn, the Falcon crossed our nose again. I kept turning and descending. After 180 degrees of turn, the Falcon flew by us one more time and then left us alone. We had descended from 4,500 feet to 1,000 feet AGL. We headed out to sea, established communication with Osan Approach, and requested radar vectors for a precision approach into Osan. Our landing at Osan was comparatively uneventful, except we had many phone calls to make and questions to answer. We decided to scrub the mission and head home.

While filing the return leg, we discovered that our ONC was woefully outdated (The chart data was 12 years old.). We saw, on the two-year-old ONC in Osan Base Ops, that additional restricted areas had been established along our flight route.

Was the F-16 intercepting us or had we gotten into the middle of an ACM training fur ball? We later learned that we had strayed into a training exercise. The ROK Air Force had not scrambled on us. We didn't have to worry about re-igniting the Korean War. Somehow, that fact provided little consolation. It was a safety-of-flight issue. We could have easily collided or been hit by one of the flares. Then my crew and I would have been the subjects of those ready room "what-do-you-think-happened" whisperings and mishap investigations.

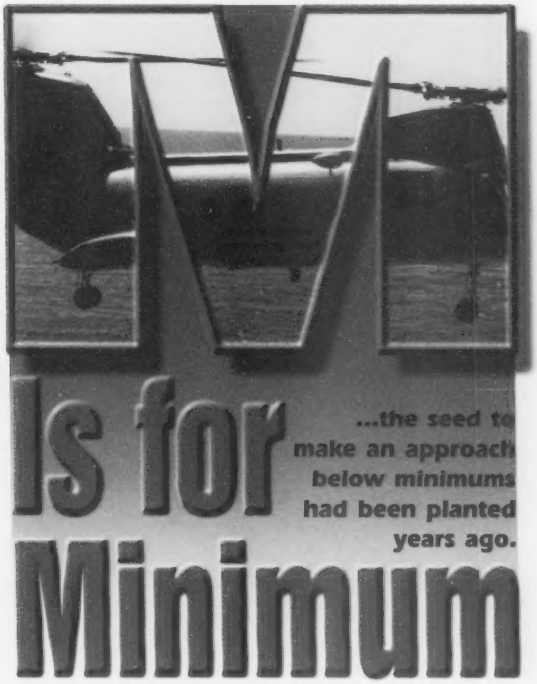
What lessons did I learn? First, before you deploy, scrutinize your chart and flight publications. A new chart, fresh off the shelf, is not necessarily current. We received our ONC from NIMA, via the squadron publication locker. Although it was one of many new, unused charts, the aeronautical information was 12 years old. The ship's copy of the same chart contained eight-year-old aeronautical information.

Second, learn to read the chart's fine print. DOD flight-information publications list effective dates, or you can easily determine the currency of the chart or publication. ONCs and TPCs only have a caution in the lower left corner stating that the air information is current through a particular date. Chart-revision information must be gleaned from the DMA Aeronautical Chart Updating Manual or the MOD (UK) Aeronautical Chart Amendment Document.

Third, even if you are filing VFR, use all the available IFR flight-planning publications, including the en-route charts. While filing the return leg, I noticed that the low-altitude airway chart showed many more restricted areas than our ONC.

Finally, file IFR when flying in unfamiliar territory. Filing and flying IFR is the quickest, simplest, and surest way of reducing the unknowns of flying in unfamiliar territory, and making sure you don't run into flares and Falcons.

LCdr. Grady flies with HSL-51.



by LCdr. Dave Rymer

THERE WE WERE, IN THE MIDDLE OF delivering passengers from mother to Chambers Field. Unfortunately, the weather was so bad that we had to make a missed approach on our first non-precision approach. On the second attempt, we were vectored to the final-approach course. We heard that a plane had just landed after breaking out at the MDA.

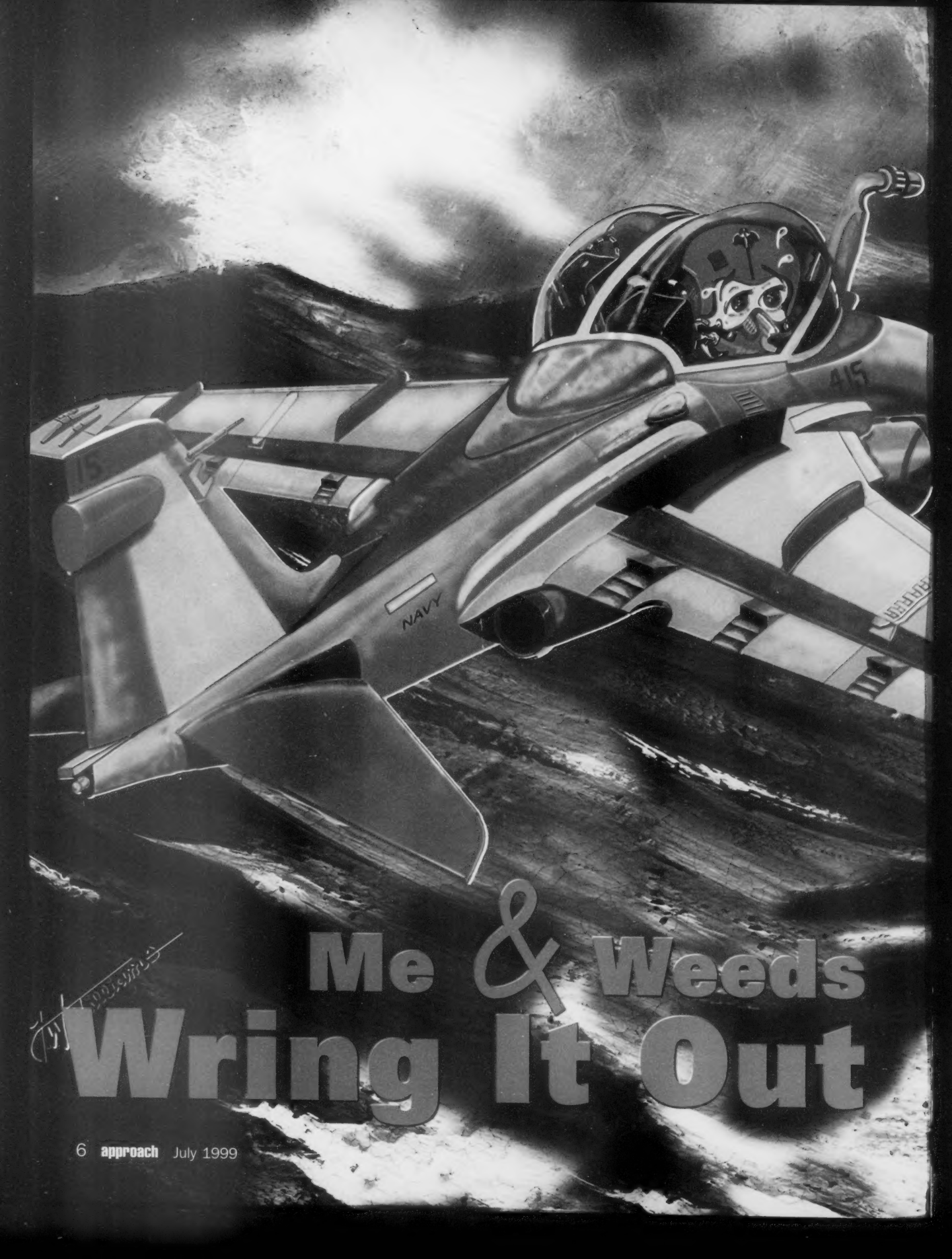
After glancing through the chin bubble, we concluded the previous crew had merely talked themselves into believing they had broken out at the MDA. After our next missed approach, we heard another radio transmission that said another plane had landed after breaking out at the MDA. Certain that the last two planes had intentionally broken the MDA, I considered my predicament and decided to try the same approach again. This time, as long as I could see the deck, I was willing to continue the approach.

It would be the second approach below minimums in my career. My previous one had been on a routine cross-country flight during rotary-wing training with an instructor pilot. Consequently, the seed to make an approach below minimums had been planted years ago.

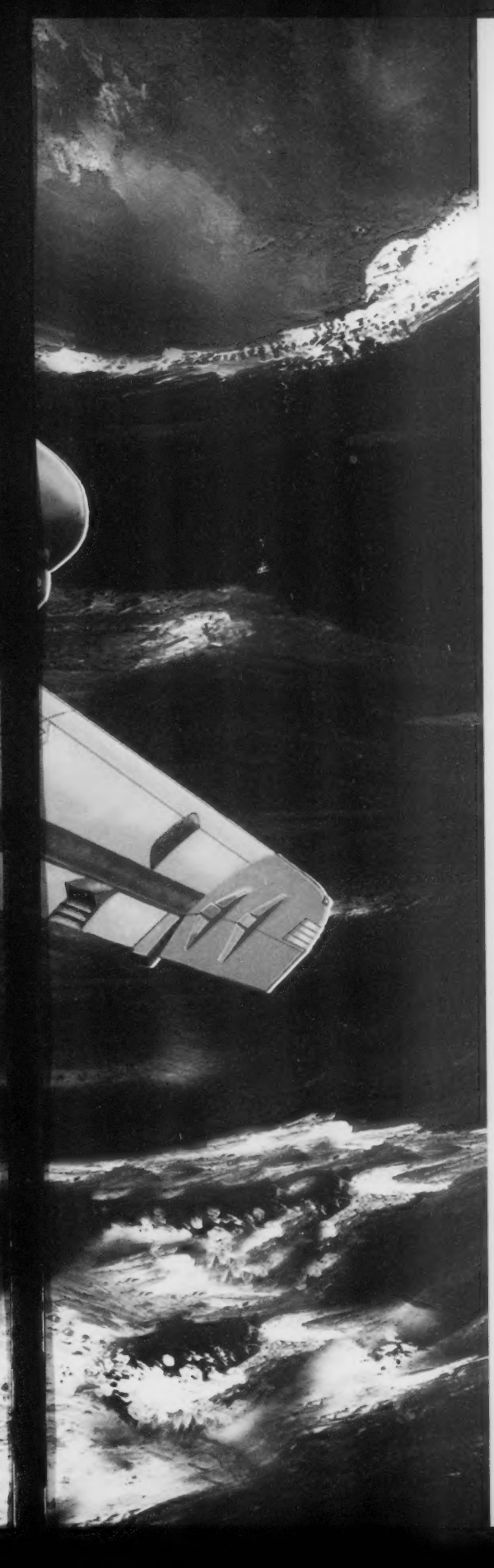
Once we reached the MDA, I told my H2P to continue his descent. About 100 feet lower, we saw the runway and landed. Then I began having serious doubts about what I'd done. I had directed my H2P to land at our destination, which was below minimums, when I could have easily returned to mother to wait out the bad weather or proceed to an alternate. The decision to break the MDA is what I would now describe as extremely poor headwork. Although we landed, I had made a bad choice. It was risky. Every foot you descend below the MDA without the field in sight increases risk. All aircraft commanders in the U.S. military are required to reject this additional risk in non-emergency situations.

My aircrewman during this mission was one of the best in the squadron—so good that he was also the squadron NATOPS petty officer. He participated in the quarterly Human Factors Councils, where risk factors for each pilot and aircrewman are reviewed. As a result of my poor headwork and faulty decision-making, I was referred to the flight surgeon, and then counseled by the CO. Overall, I learned first-hand that if you are exposed to an improper procedure, technique, or decision, someday—maybe even a couple thousand flight hours later—you may be confronted with a compromising scenario too tempting to resist. Fight the temptation to lower your professional aviation standards. Today's indiscretions, left uncorrected, can quickly blossom into tomorrow's mishap.

LCdr. Rymer is the VT-6 safety officer.



Me & Weeds Wring It Out



by Cdr. John D. Alexander

AFTER COMPLETING MY FIRST SQUADRON tour in Intruders more than a decade ago, I was not ready to stop flying. I had spent two years accumulating more than 1,000 A-6 hours, and the aircraft felt almost like a second skin when I manned up.

With all this confidence, I finagled a set of one-year orders to VA-155, a newly commissioned Intruder squadron during the expansion years of the late 1980s. Shortly after arriving, we began work-ups, and of course, I was crewed with the newest FRS graduate (call sign "Weeds") to show him the ropes around the boat. This was to be even more interesting because we were working the Caribbean op area. Being a West Coast sailor, I was thankful for the change of scenery.

The new kid was good. He had only been with the squadron two weeks and was a natural with the stick. Not cocky, but confident. Always came prepared. His thirst for knowledge was unmatched.

One night we planned to practice his ACLS approaches to the ship. He had been working hard with line-up during the previous nights and wanted to get it down pat. We arranged for CATCC to work us from the 10-nm point on the approach to a waveoff at one mile. It was a great opportunity for both of us to improve our crew coordination, too.

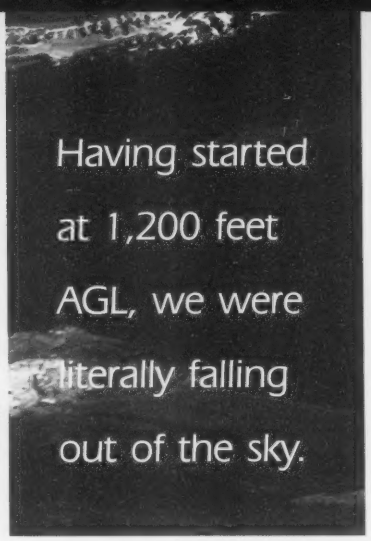
We launched off cat 2 and climbed overhead to wait our turn for the approaches. The night was extremely hot, but the AC kept us nice and cool.

Finally, after what seemed like forever, we received vectors to intercept a downwind heading to set up our first needles approach. Everything was going well, and his practice was going to pay big dividends down the road.

The first approach went flawlessly. Weeds was aces-on all the way. Since we had 14K of gas, we were certain to get at least four more approaches before hitting our ladder. The only odd thing encountered was we didn't take into account the high gross weight and were

somewhat surprised at the higher approach speed. No matter. It computed properly, and the aircraft was right on the numbers.

Feeling comfortable, we hooked in for our second approach at eight miles. Nothing special as we completed the landing checks and slowed to on-speed. Line-up was again right on as we approached tip-over at three miles.



Just as we began descending, we heard a loud pop, like someone had just hit the plane with a metal pipe. We both checked the instruments. At first glance, nothing appeared wrong, but things were happening fast. Weeds tried to stop our descent to better assess our situation and quickly knew we were in trouble.

Having started at 1,200 feet AGL, we were literally falling out of the sky. He instantly jettisoned our stores, but we were still going down. Time compression took over, and everything was moving in slow motion. The gear came up next as we passed 800 feet AGL.

My next words were, "Have you got it?"

Much to my surprise, he answered, "No."

Having never had a pilot admit to not having control, I responded with, "Prepare for ejection at five hundred feet."

We both held onto our lower ejection handles as Weeds tried milking whatever he could out of the stick. As we passed 600 feet, still descending, I was convinced we were going swimming.

Suddenly, Weeds shouted, "Stand by, I think I've got it now." Our descent slowed, and the aircraft resumed level flight at exactly 500 feet AGL. We flew up the angle straight ahead, climbing for all we were worth.

It seemed like we reached 5,000 feet in no time. As we settled down, the lack of rpm on the port engine revealed that it had failed. We shut it down following the bold-face procedures.

Feeling heroic, we formulated a plan to divert to Gitmo, a negligible 60 miles away. No problem until...

As soon as we told them our intentions, the ship told us to set up for a single-engine approach to bring it aboard. I couldn't believe it!

Here I was with the newest pilot in the squadron, single engine, 90-degree heat at 2330 with a divert only 60 miles away, and they want us to bring it aboard?

We finally regained our composure and began working on a game plan. On the first attempt, we were out of the window at a mile and they shucked us early. However, the second attempt was sweet. Weeds was awesome as we crossed the ramp, and I just knew we were in the wires. But nothing happened. We went trundling off the angle, remaining at 60 feet for at least a mile upwind before gaining enough speed to climb away from the water.

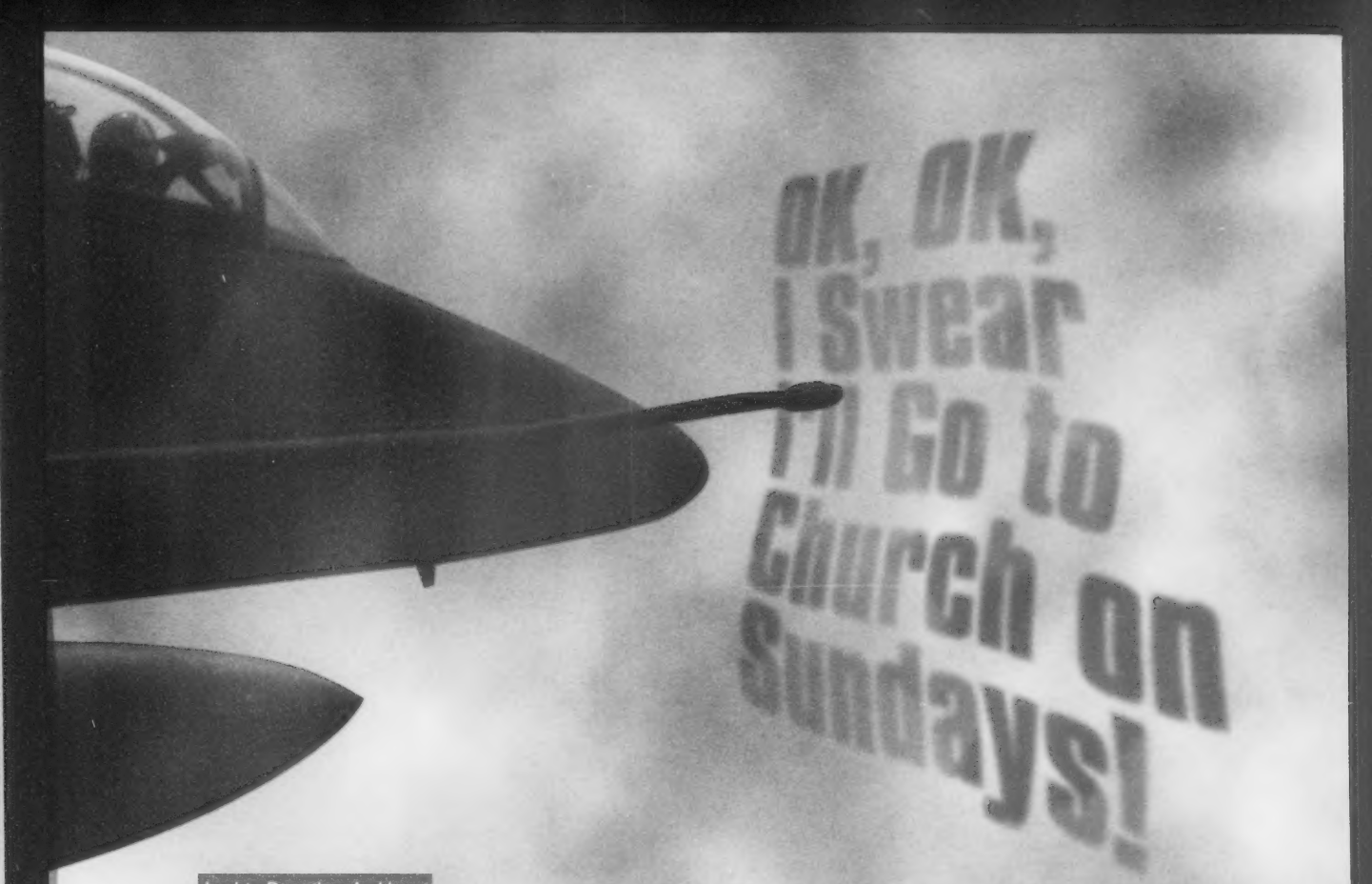
Now our destiny was set. We headed directly to Gitmo and landed. When I crawled out of the aircraft, I dove the port duct and saw the turbine was completely seized. It would move no more than an inch in either direction. Quite an eye-opener for a salty guy like me.

The first lesson I learned was personal: Too much confidence can bite you.

The second lesson had a more technical aspect. When the engine quit, what was the emergency procedure? Easy! Throttle—off, engine fuel master—off. Had we done just that, we would have been wet for sure.

However, because of the aircraft's and profile, the emergency resembled something that might happen on takeoff. Looking back on it, we did the emergency procedure of continuing the takeoff without realizing it. The gear came up, the stores came off, we slapped the gang bar off and attained balanced flight. We also validated the caution that refers to aircraft falling out of the sky with a single engine at heavy gross weights and high temperatures.

Cdr. Alexander flew with VA-155 at the time of this story. He is now the CO of VAQ-135.



OK, OK, I Swear I'll Go to Church on Sundays!

by Lt. Douglas A. Haag

EVER HAD A LIFE-CHANGING EVENT? It doesn't have to be a catastrophe, like losing a loved one or investing heavily in a market just before it crashes. It can actually be just the threat of catastrophe.

It all started one morning at Cecil Field. The weather was typical of mid-winter—clear on top, but the airfield had a solid fog bank spread out for a few miles. Having been stationed there during my first tour, I believed, like most adversary pilots, that the bank would lift and burn off early in the morning. So our 0630 brief continued for a 4 v X OCA mission in the Whiskey area, 100 miles northeast of Cecil Field over the Atlantic.

As the brief concluded, the flight lead called weather again. The fog bank was forecast to clear around 1000, about two hours after our scheduled takeoff. We planned to start up and hold in marshal. We would allow 30 minutes max slide, then cancel the first event if the weather didn't clear. As I walked to my jet, I looked up and thought that this milky goo was a bit thicker than anything I'd seen before. But hey, I could use some instrument time. Besides, we had already decided that if the weather did not meet circling TACAN mins, we would not launch.

The start and taxi were uneventful and we held in marshal. Just as the last minute was about to end in our max-30 minute slide, lead called for taxi. Wow! It sure didn't look like circling mins!

The Cars were first because they were the first-event fighters; the Winders would follow in 10 minutes. Then, the Omars and the Dogs would launch, a total of 10 bandits.

As we taxied, it looked as if the fog was trying to burn off, and sure enough, the bank lifted above mins, and we launched.

After popping through, you could see the ground in certain areas. By the time we were done in the Whiskey area, the fog bank should be gone altogether.

"Let's go have some fun," I thought.

Peter Mersky

As I crossed the beach, about 25 miles northeast of Cecil, I had 1,900 pounds of fuel left. I was at 12,000 feet and felt that would allow me one approach...

After the third run, the Cars were already returning to home plate. We were giving our second presentation to the Winders, and the Cars considerately let Big Guy (our GCI) know that the weather did not develop as planned. In fact, Big Guy called, "Ninety-nine, Omars, weather at home is being reported at two hundred and a half-mile vis." Oops, that didn't sound good at all. By the time we decided to RTB, the fourth run was about complete. No one at this point was fat on gas. However, we had briefed Patrick as our alternate; and it appeared that everyone had maintained his bingo number just in case.

Shortly after we turned to put the needle on the nose, we heard the call. The Cars had attempted the approach but couldn't see the field. As a former Hornet driver, with all those frill benefits of the HUD, including the info of VSI, velocity vector, and altitude right up there in front of me, I realized the odds of an A-4 breaking out were next to nil. My Scooter was nowhere close to being as sophisticated as the Hornet. In fact, it was a dinosaur. I had only the big, old basketball (otherwise known as the AJB-3) and a TACAN. After four Hornets had tried, my confidence was dwindling, and I was considering Patrick.

About halfway home, one of the Winders declared an emergency and requested vectors for the closest field. Ouch, not the best day to have an emergency. However, he started getting vectors to Jax International. Why Jax? Why not Mayport, which was closer?

Jax was calling VFR, although looking over there it was hard to believe. As I crossed the beach, about 25 miles northeast of Cecil, I had 1,900 pounds of fuel left. I was at 12,000 feet and felt that would allow me one approach, because I would burn nothing in the descent and probably use 200 pounds if vectored right to final. But things were not all that rosy.

The pilots who had decided not to bingo to Patrick right off the bat were being vectored south of Cecil to land on runway 18, which resulted in delays and low fuel. As I was beginning to request vectors to Patrick, my fuel gauge was winding down too fast. Five seconds later, my fuel was reading 550 pounds, and I had a low-fuel light.

"Jax Approach, Omar One Seven, I'm declaring an emergency. I need vectors to Jax International now. I'm emergency fuel."

About a second later, approach, who, by the way, already had his bucket full with Winder 12's emergency, vectored me toward Jax. Now, I was 30 miles south of Jax. At my

altitude of 5,000 feet, I could milk it down to 3,000 feet. I didn't want to go any lower for fear of not seeing the field as soon as possible. Also, I wanted to steer clear of any populated areas in case I had to eject.

As I eased it over, I set 1,500 pounds of fuel flow in my descent and got about 250 knots. I realized that was too fast, so I trimmed for 10.5 AOA, which was max range. Now at about 200 knots, I started looking for the field, but I couldn't see it.

"Jax Approach, confirm Jax International is VFR."

"Roger, Omar One Seven, Jax International currently reporting VFR, three thousand feet and three miles vis."

At about 15 miles from the field, which I still couldn't see, Winder 12 was vectored to final along with the rest of his division. I also heard another Omar being vectored towards Jax International. On top of that, Jax had its normal civilian traffic.

Jax Approach began giving me a vector that was 20 degrees left of the field for sequence. My fuel was now down to 300 pounds. At my fuel setting of 1,500 pounds, I had at best 10 minutes of fuel left. And that was if I trusted the fuel gauge, which I didn't.

"Approach, unable to steer left twenty, only have five minutes fuel remaining, over."

"Roger, Omar One Seven, field is currently at your twelve o'clock, ten miles."

About 10 seconds later, I saw the field. Whew, it was VFR! But it wasn't over yet.

"Omar One Seven, field in sight."

"Omar One Seven, cleared to land runway one three. Check gear down." But that wasn't the closest runway. Runway 7 was easier to align with, had arresting gear, and was longer.

"Omar One Seven requests runway seven."

"Unable, Omar One Seven, arresting gear out of battery due to previous emergency aircraft."

That's right, Winder 12 had had an emergency, and he was still on the runway. Well, runway 13 it was.

I nosed over and pulled the throttle back to 70 percent, pretending I was a glider. Runway 13 sure was short. I'd better not mess this approach up; I knew I didn't have enough fuel for another pass.

At about 2 miles on final I lowered the gear. It seemed like forever before I got three good down-and-locked indications. To make sure I used all the runway, I landed within 200 feet of the approach end, put the brakes on and lowered the flaps to decrease roll.

I made it. I taxied over to the Florida ANG ramp, called det maintenance and told them I was safe on deck. Of the 18 aircraft that launched on the morning go, six diverted to Jax International, five diverted to Patrick, and seven made it in to Cecil.

Should we have launched that morning? Probably not. It was one of those classic ORM issues that the Navy is trying to drum into our heads. Do the risks outweigh the gains? In this example, I think the answer was no. As far as my own emergency, we found later the aircraft was not transferring the remaining fuel from the wings into the fuselage tank. Fuel for the engine can only come from the fuselage tank; consequently, whatever remained in the wing tank was useless.

The A-4's fuel system is designed so that once the fuselage tank gets to 550 pounds, it no longer indicates total internal fuel (wing fuel plus fuselage fuel). I had only 550 pounds of useable fuel when the low fuel light came on. Yikes!

All's well that ends well, and I learned a valuable ORM lesson… indirectly. I hope others will learn from this too, because odds are they won't be as fortunate as I was having a field VFR only 30 miles from one that was fogged in with less than 200 and 1/2. Yes, my emergency could have happened anywhere, and at any time, but we took an unnecessary gamble that could have become a lot uglier.

Lt. Haag flies with VC-8.

Over the Edge but Going Flying

by Lt. Kerry Hennessey

IT WAS A STRESSFUL EVENING TO BEGIN WITH, because I was preparing for my first night trap. I was an FRS student CQ-ing on the USS *George Washington* (CVN 73), and I had completed six day traps. The weather was terrific, with a full moon expected. I was on the first launch of the evening.

Naturally, I was nervous, but I tried to be cool. After suiting up, I went up to the flight deck to find my jet. I did not know enough to ask where it was parked, although it didn't take long to learn. Once on the flight deck, I quickly noticed that it was much darker than I had expected because the moon had not yet come up. It would take a while for my eyes to adjust. My FA-18C was parked on the starboard side, near the stern, on elevator 3.

I always do a very thorough preflight, and tonight would be no exception, especially considering the newness of this endeavor. The usually effective flight-deck lights didn't illuminate my jet because the island blocked most of the light. Have no fear; that's what a flashlight is for, I thought.

As I circled my aircraft and tried to crawl under the wheelwell to check APU pressure, I inadvertently stepped over the flight-deck edge and down I went. I had only a fraction of a second to imagine the 70 feet I could fall to the water below before I landed in the net. I lay momentarily, paralyzed with fear, before I scrambled to my feet to climb back to the flight deck.

Two things became quickly obvious. First, no one had seen or heard me fall, and second, it is hard to crawl out of those nets wearing an LPU. I could see a group of maintenance people talking in front of my jet, but they had not realized what had happened. My pride would not let me call out for help. After about four good jumps, each time concerned that the net would not hold for the landing, I finally made it back onto the flight deck.

Shaken from the event, I was not hurt other than rubbery legs and a bruised ego. I was now faced with deciding whether to confess the incident and delay my launch until I calmed down, or keep my secret and press on. Again, pride made the decision, and I climbed into

the cockpit. I should have realized my shaky legs, which could barely hold up my body were enough of an indication this was a bad decision. But I was not man enough to face the embarrassment of what had happened.

The fear didn't go away once in the cockpit. I could not calm my nerves, no matter how hard I tried. Taxiing the airplane was even more of a nightmare. Each time a yellowshirt got me close to the edge, my fear intensified. At any time during startup and taxi I could have, and should have, called uncle, but I didn't. This was a Class A waiting to happen.

You can probably guess the rest of the story: I got airborne and performed miserably. Of the two touch-and-goes (fun at night) and four traps, I recorded three 1-wires and boltered once. Obviously, poor CQ grades resulted from such a dismal performance. Amazingly, those grades were the worst punishment I received for doing something so stupid. It's been six years since that incident, and the lessons are still etched in my mind.

Be aware of your aircraft's position on the flight deck. I am speaking especially to novice carrier players. At the time of this incident, I had no idea that a Hornet could be positioned with its entire back half hanging over the edge. Second, be careful preflighting at night. For a short time after this incident, I was an advocate of no preflight at night, but I soon realized that was unrealistic.

Third, and most importantly, don't let pride get in the way of sound decisions. Never go flying when you are not mentally prepared. We hear this briefed all the time, but often in the same breath come statements like "suck it up" or "be a man," or other such admonitions, implying that it is not only acceptable but in everyone's best interest to fly when you're not up to it.

This is especially true during workups, with COMPTUEX and JTFEX cycles, when crew rest is a luxury.

I am proud to report I learned these lessons, and it was the last time I launched when I knew I shouldn't have. I am also thankful to those individuals who supported me the few times that I elected to say, "No."

Lt. Hennessey is an NROTC instructor at North Carolina State.

John Williams

Does Anyone See the Helo on Approach?

by Ltjg. Scott Downey

AFTER A RECENT MISHAP IN WHICH A Prowler clipped a Viking in the landing area of another carrier, the LSOs and Air Boss were being extremely conservative regarding foul decks.

On the last night of the CQ, I was waiting for my jet to be refueled, admiring the view as I watched the last few planes trap. At last, the SAR helos began their approach. The pilots parked on my left and right were also enjoying the show.

As I watched, something caught my eye. It was a Viking being taxied across the landing area toward the platform. I didn't think it was anything unusual. At the rate the helicopter was coming, I thought they could get three or four planes across. But this time was different. The helo seemed to make a quick approach while the S-3 was moving just forward of the 4-wire.

I soon realized there was no way the helicopter could land. I thought, "I'm sure someone will stop this." Who was in charge? My own name wasn't on that list. I was surrounded by a dozen pilots all watching the same potential disaster unfold, and no one said anything.

When I looked again, the helo was crossing the ramp, and still, no one spoke up. It was as if I was Dash 2, waiting to speak in proper order before I keyed my mike.

When the two aircraft were separated by 200 feet, I heard someone say, "S-3 in the landing area." This comment did not elicit a response from anyone, including me, and the approach continued. The S-3 crew flashed their lights and hollered, "Waveoff! Foul deck! S-3 in the landing area!" over the radio. Finally, the helo climbed straight up and out over the water. We ended flight operations for the night.

Later, I had a chance to talk with one of the helicopter pilots. He told me they had the Viking in sight the entire time, which would have been nice to know on deck.

If I had been in that S-3, I would have asked everyone out there why the group with the least SA had to make the call. If they asked me, I would have to admit I just wasn't assertive enough. I know that it will take many more years before I learn when and where to speak, but in obvious situations like this, I had no excuse. As single-seat aviators, we're still responsible for aircrew coordination.

Ltjg. Downey flies with VFA-86.

CORNER

OBNOXIOUS, RESTRICTIVE MEASURES?

by Maj. Philip Welsh

WHAT IS THIS NEW STUFF CALLED ORM? Seems like just another effort to tie the hands of steely-eyed aviators and make briefs longer. Is it a program, and if so, who actually directs it—the command? The safety department?

Plus there are five steps. I'm supposed to go through five steps to carry out my daily operations in and out of the cockpit? Flow charts, questionnaires and surveys before (or part of) mission planning or the preflight brief? Beady-eyed safety maniacs trying to get into my head to analyze if I can handle the mission?

I've been flying for 10 years and have seen only one Class A mishap in the three squadrons I've served in—and that was due to mechanical failure. I'd love to meet the guy who thought up this stuff!

Do any of these questions or emotions sound familiar? I first encountered them while sitting in a classroom at the Aviation Safety School, counting down the clock to another night in Monterey. Yeah, I thought, the Army incorporated this program and claims it has worked miracles for their mishap rate. They probably needed it, though. They're not like us who wear gold wings.

Lately, my skepticism is starting to change. Several good friends have either narrowly avoided or walked away from incidents and mishaps that were caused by momentary encounters with criminal stupidity. What makes good sea stories for them now could have easily become catastrophic mishaps.

Would using ORM have prevented these daring people from having their close encounters? Would a little common sense have changed their decision process? The answer to both questions is yes, and ORM would have helped. The goal is to minimize our risk as much as possible. We can never eliminate it, but we can take most of the unnecessary risks, manage them and reduce them to a level that will raise our chances for success and lower our mishap rates.

ORM is not some new wonder program. Its process has been with us a long time. Every time we make a decision, we exercise some degree of risk management. We can shuffle numbers from flow charts and prebrief questionnaires around to suit our mission needs, but what are those numbers and questions doing for us? Don't they simply force us to identify and assess possible risks? As professionals, shouldn't we be doing that already with comprehensive mission planning?

We just knocked out the first two steps of the ORM process!

Once identified during our initial planning, we usually go right into implementing risk-control options by deciding how to reduce risks. What's the best route for ingress or egress? Do we need alternates? What kind of profiles should we fly? Is the mission day or night? How will weather affect us? What kind of ordnance and countermeasures do we need? What about our crew? Will we work well together? If these questions sound familiar, you've done

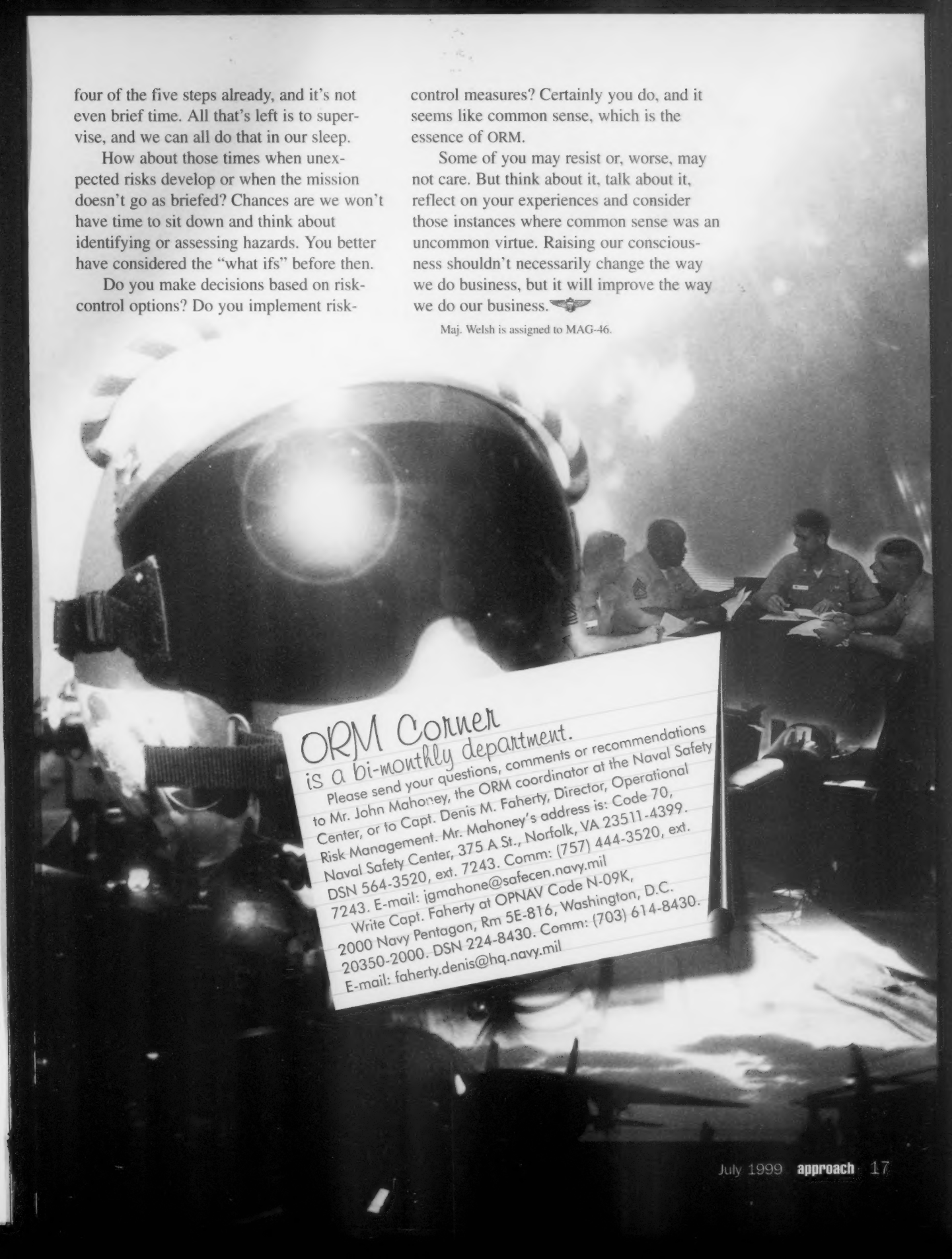
four of the five steps already, and it's not even brief time. All that's left is to supervise, and we can all do that in our sleep.

How about those times when unexpected risks develop or when the mission doesn't go as briefed? Chances are we won't have time to sit down and think about identifying or assessing hazards. You better have considered the "what ifs" before then.

Do you make decisions based on risk-control options? Do you implement risk-control measures? Certainly you do, and it seems like common sense, which is the essence of ORM.

Some of you may resist or, worse, may not care. But think about it, talk about it, reflect on your experiences and consider those instances where common sense was an uncommon virtue. Raising our consciousness shouldn't necessarily change the way we do business, but it will improve the way we do our business.

Maj. Welsh is assigned to MAG-46.



ORM Corner is a bi-monthly department.

Please send your questions, comments or recommendations to Mr. John Mahoney, the ORM coordinator at the Naval Safety Center, or to Capt. Denis M. Faherty, Director, Operational Risk Management. Mr. Mahoney's address is: Code 70, Naval Safety Center, 375 A St., Norfolk, VA 23511-4399. DSN 564-3520, ext. 7243. Comm: (757) 444-3520, ext. 7243. E-mail: jgmahone@safecen.navy.mil

Write Capt. Faherty at OPNAV Code N-09K, 2000 Navy Pentagon, Rm 5E-816, Washington, D.C. 20350-2000. DSN 224-8430. Comm: (703) 614-8430. E-mail: faherty.denis@hq.navy.mil

Two Up, Two Down

by Lt. Carol Prather

DOGFISH 98 WAS OUR FIRST major exercise after we arrived at Sigonella. VP crews from nine NATO countries converged on the base to show off their ASW prowess. The day before our crew's first flight, 17 crews gathered in a conference room on the Italian Air Force side of the field for a brief on the rules and sequence of the exercise. The room was packed with people speaking a variety of languages and wearing flight gear that ran the gamut of styles in leather and nomex. The commodore of the base welcomed everyone, and we spent the next hour going over the NATO-coordinated operations and getting familiar with the scenario.

The exercise started the next morning, and Crew 9 took off that afternoon just before sunset for our crew's first tactical ASW event of the deployment. I was a recently qualified PPC flying as 2P with the senior pilot in the squadron, a lieutenant commander with 3,000 hours in the P-3. Our assignment was to fly a nine-hour mission hunting an Orange Forces Spanish submarine; we were working with a Blue Forces Spanish sub.

We arrived on station, and following standard procedure, we shut down the No. 1 engine to save fuel. We checked in with our Blue playmate and sorted out our tactical plan.

About an hour and a half into the flight, it was my turn to fly. The PPC got out of the left seat, and I hopped in. The PPC (who was also the mission commander) put on a headset and made himself comfortable on the radar cabinet in the flight station. The 3P had the controls in the right seat, and I began coordinating directions to surface contacts with the TACCO and the radar operator. With no moon,

Over the ICS, someone looking out the aft observer's window reported a "glow on number four."

it was quite dark, classic conditions for a malfunction.

We settled into the problem and were zooming along at 1,000 feet when the No. 3 engine unwound. The plane lurched to the right and started to settle. Because most P-3 pilots rest their hands on the yoke regardless of whether they have controls, that's where mine were. The 3P and I both jammed the power levers up.

I glanced at him and said, "I have the controls."

He acknowledged, and I started climbing and concentrating on leveling the wings and raising the side with the dead engine. I was focused on keeping the nose up and keeping the airspeed above stall. I checked the altimeter. It took a few moments to realize that we were in fact maintaining altitude and not in imminent danger of hitting the water.

Over the ICS, someone looking out the aft observer's window reported a "glow on number four."

I couldn't look away from my instruments, and I knew only that at least one engine had quit on the right side. The plane was acting sluggish, so besides the possibility of a fire, I also thought we might be single engine.

"We have to get One back up," I said.

The FE agreed about having another engine working, and he had already identified No. 3 as the culprit.

"Roger," he replied. "Three's gone. Check me on Three."

I glanced at the engine instruments and saw TIT and rpm dropping on No. 3. Once the 3P and I had verified that the FE had his hand on the right E-handle, the FE yanked it out. The engine's propeller stopped windmilling and went into full-feather.

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With the dead engine feathered, our climb rate picked up immediately, allowing me to divert a little more energy from pure stick-and-rudder stuff to other problems.

"We need to know what's up with the glow on Four," I said.

Our senior acoustic operator had gone aft to the observer seat as soon as he had heard the engine flame out. He repeated he saw a glow on Four but no other indications of fire. When the chief made his initial call, I considered the possibility of the No. 3 engine might have slung something into No. 4 and started a fire. The VP-47 ditching hazrep was fresh in my mind. It turned out that in our case, when we lost No. 3, we had cobbed on enough power that No. 4 had torched for a few seconds—normal enough for that kind of rapid power addition. After what seemed like 15 seconds, the TACCO called, "Hey, flight, what's going on?"

I told him to stand by as the 3P rattled through the checklists. About that time, we restarted No. 1 and were going through the final steps on the checklists when the TACCO again asked what was happening. I told him we had lost No.3 and I would get back to him.

When we had everything stabilized in the cockpit, we discussed what had happened. None of us could figure out what had caused No. 3 to unwind. It had just flamed out with no warning. I apologized to the TACCO for not getting back to him sooner. I explained we were busy dealing with the problem. He said that when he heard the engine go, he knew we were occupied and had punched the second hand on the clock to wait two minutes before bugging us. He hit it again after his second call. It had seemed to me like he had been calling us every 15 seconds.

Finally, we started back to the field. The PPC got into the left seat to fly the approach and landing, and I got into the right seat to handle communications with ATC.

Thirty miles out, we declared an emergency with Catania Approach and asked for a GCA. We switched to the GCA frequency at 12 miles. We could see the field from several miles out, and when it was evident our lineup wasn't going to help our GCA, the PPC took over visually and brought it in.

Later, after the mechs had inspected the engine, we found out that No. 3's accessory drive shaft had sheared. Since the fuel pumps are driven by that shaft, the engine had flamed out. This particular engine had also been a thorn in the side of the maintenance department for several months. We had had repeated problems with it, but never enough, according to the MIMS, to change it.

As the aircraft division officer, I had spent some time with the squadron MO pouring over the aircraft discrepancy book just before we deployed to see if there was a link between all the problems with that motor. The power-plants shop was happy they could now justify getting the engine out of our hair.

This experience was a good, relatively cheap lesson. As this was our first ASW mission on the deployment, and the first time we had loitered an engine in some time, we had run ourselves through full briefs for loiter and restart. Those briefs cover emergencies with an engine already shut down. Those points helped us. We still had a lot of fuel and were fairly heavy, so we were fortunate to be at 1,000 feet in the search phase instead of a lower altitude for tracking. (Squadron standardization notes allow 300 feet at night when you have a radar altimeter.)

It was also good that No. 2 hadn't quit. You can fly with two engines out on one side, but when you don't expect that problem, it is a lot uglier and much more challenging.

Lt. Prather flies with VP-26.

16 Hours
Behind the Curve

by LCdr. Rick Martier

I HAD JUST JOINED THE SQUADRON ON deployment for my department-head tour. The excitement of being back at sea and the challenge of this assignment were exhilarating. When I arrived, I had been in and out of airports for the last 36 hours. I was physically and mentally exhausted. The air wing was three months into the deployment, including the last 45 days underway, and was flying combat operations as part of Operation Desert Fox. My pride and desire to hit the deck running kept me from confessing how awful I felt. I could no longer burn the candle at both ends.

The CO told me to take it slow and get some rest. I assured him I could fly the day I arrived, but he promptly said no. I found myself on the flight schedule two days later.

It was hard adjusting to the 10-hour time-zone change, and I had not had more than four continuous hours of sleep in the last five days. Throughout the flight, I felt like I was hanging onto the tail. I was behind the aircraft and made several switchology mistakes, the kind of errors you'd expect from an FRS student, not someone with more than 1,000 hours in the aircraft. I never told anyone how bad I felt. I had not been assigned to a department, so I used the free time between sorties to rest.

I have read it takes one day to adjust to every hour of time-zone change. That's a broad statement, and I don't think it applies to everyone. I do know that two days was not enough time for me to adjust to the 10-hour change. I knew the proper thing to do when I saw my name on the flight schedule, but like other Type A aviators, I wanted to be in the fight.

If you find yourself in a similar situation, take the time you need to get acclimated. You are not doing yourself or the squadron any favors by pushing beyond your limit.

LCdr. Martier flies with VAW-117.

POP-UPS

Edited by LCdr. Mark Enderson. Contributors can contact him at (757) 444-3520 Ext. 7245 (DSN 564). E-mail address: menderso@safecen.navy.mil

PH1 Ted Salois

Strip Lighting for Cobras

The AH-1W's history of near-midairs (12 reported over the last 10 years and three midairs) due to poor external lighting, prompted the development of a new strip-lighting kit. The kit places fluorescent green and infrared lights on both sides of the aircraft, greatly enhancing visibility.

This strip-lighting kit has been in work for more than five years and was recently approved for distribution to Cobra squadrons. The current contract calls for 12 kits to be delivered each month, two to each squadron per month. Installation of a kit takes two weeks.

Maintenance-Malpractice Videos

Several copies of maintenance-malpractice (MMP) videos are now available. The MMP has been a highlight of safety surveys for years. Using actual events, tailored for the audience, the presentations give maintainers a hard-hitting, eye-opening brief with a touch of humor.

With ever-decreasing budgets, these videos provide a terrific training opportunity. A limited number of copies are available on a temporary basis. For further information, contact ADCS(AW) George Jubert at (757) 444-3520, Ext. 7206 (DSN 564).

Creating an Eyewitness to a Mishap

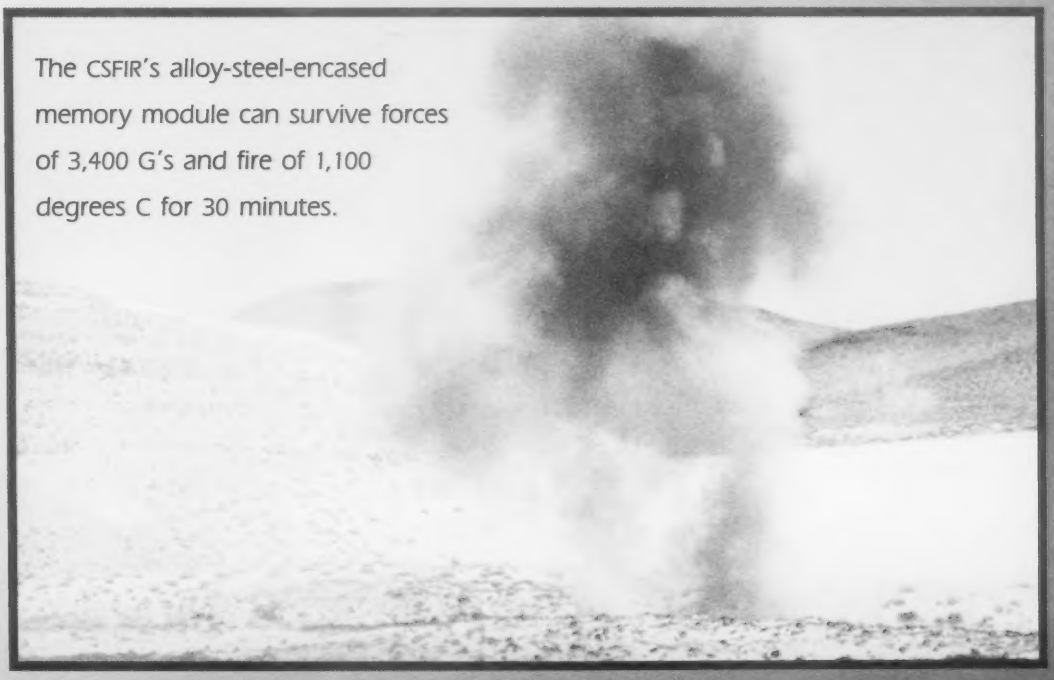
Until a few years ago, mishap investigators were often stymied by a lack of witnesses or survivors. Causal factors were often based on possibilities. But now, the incorporation of flight-data recorders in Navy and Marine Corps aircraft may shed more light on these mishaps. An absolute cause may still not be provided, but these tools will allow the mishap board to rule out potential causes during the fact-finding process.

There are two types of flight recorders used today. The first type is the deployable flight-incident recorder (DFIR) and is designed to automatically eject from the aircraft. DFIRs record more than 70 flight parameters and eject from the aircraft at 20 longitudinal G's on impact or pilot ejection. The second type is the crash-survivable flight-incident recorder (CSFIR). CSFIRs are designed to withstand a crash or fire. The alloy-steel-encased memory module can survive forces of 3,400 G's and fire of 1,100 degrees C for 30 minutes. These are the most common recorders, especially in commercial aviation. They are referred to as "black boxes," although by law, they must be painted international orange to make them easier to spot.

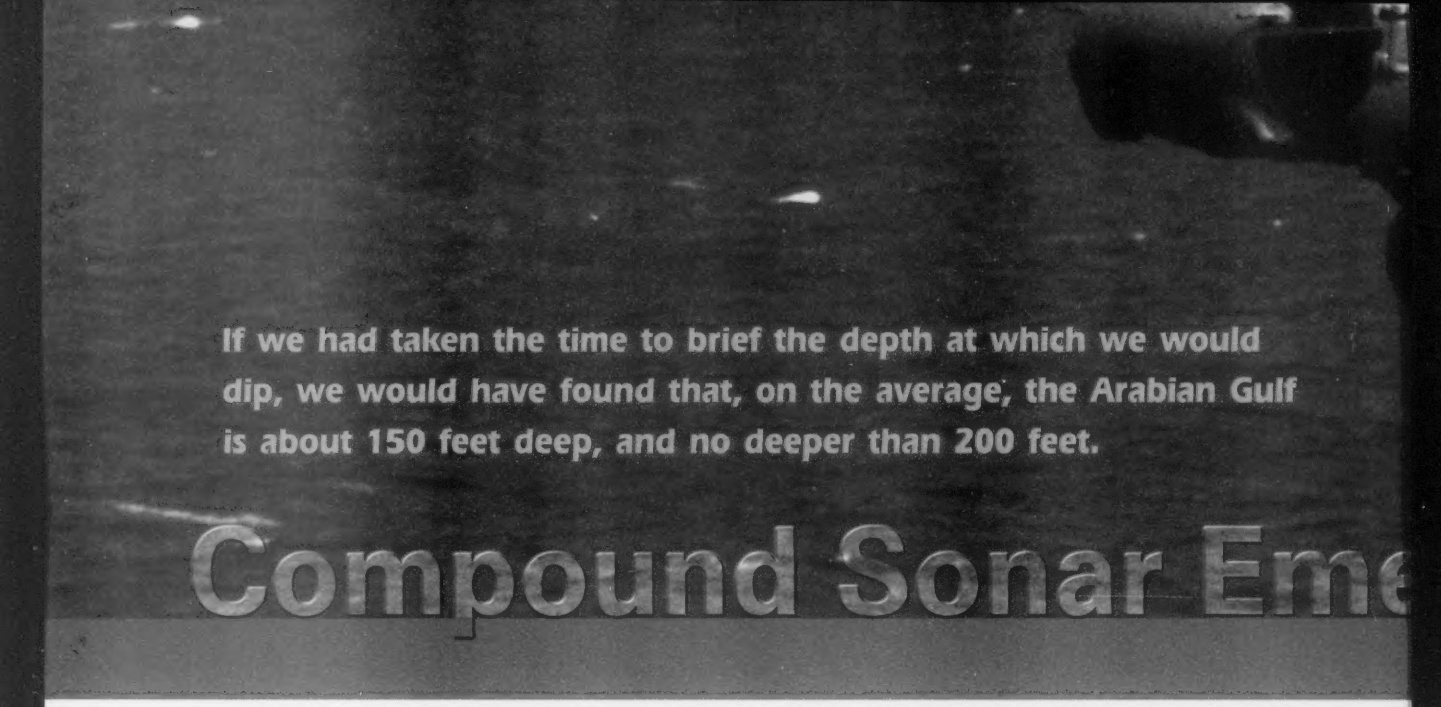
More than 600 Navy and Marine Corps aircraft are scheduled to receive CSFIRs, and about 300 DFIRs are already installed.

A new CSFIR known as the voice-and-data-recorder (VADR) is being installed in Navy and Marine Corps aircraft. The VADR can record up to four channels of audio and other flight parameters for at least 30 minutes (record time is inversely proportional to the number of parameters recorded). When procurement is complete, more than 400 VADRs will be installed in selected series of FA-18, AV-8B, C-2, C-130, P-3, H-3 and H-60 aircraft. Another CSFIR, the Fairchild Model F1000, is used in C-9s and slated for C-12s and T-44s.

The flight-data analyst at the Naval Safety Center, meticulously extracts all available data from the various flight-incident recorders. Using an animation program called the recovery analysis presentation system (RAPS) on a Hewlett Packard 9000 work station, he can produce a real-time simulation from the flight data for the aircraft-mishap board.



The CSFIR's alloy-steel-encased memory module can survive forces of 3,400 G's and fire of 1,100 degrees C for 30 minutes.



If we had taken the time to brief the depth at which we would dip, we would have found that, on the average, the Arabian Gulf is about 150 feet deep, and no deeper than 200 feet.

Compound Sonar Eme

by Ltjg. Matt Conner

IT WAS A MILD, CLEAR NIGHT IN THE ARABIAN Gulf. We had been operating in-theater for more than a month and were settling into the routine of cyclic operations.

My HAC and I, with our two aircrewmen, began our plane-guard mission by taking our SH-60F on a hot-pump crew switch for the last go of the night. Along with our playmate, we were to cover two cycles. We had briefed that we would do some training by practicing night SARs and sonar dip-to-dips. We did not, however, brief how deep we would submerge the sonar dome on our practice dips.

About 15 minutes before the last cycle, and an hour before our recovery time, we began practicing the sonar dips. After doing the automatic-approach checklist and determining wind direction, we engaged the automatic approach, which brought us to a stable hover at 70 feet. In the first dip, we sent the sonar down to 190 feet. I engaged the cable-angle hover mode, which allows the AFCS system to keep the cable perpendicular to the water.

After a complete sonar search, the only contact my ASO crewman was holding was mother about three miles away. My HAC gave the order to raise the dome, and when it was seated, he continued upwind for another dip.

The second dip was about half a mile away. Our ASO again submerged the dome to 190 feet. All indications were normal until he ordered the dome raised. When the crewman started to bring the dome up, he noticed it wasn't wrapping correctly on the cable drum and stopped raising it. The damage was already done, though, and the drum was a mass of tangled cable.

When the problem had started, the bottomed-dome caution light had illuminated on the ASO's console. Faced with a compound sonar emergency, the crewmen began their emergency procedures. The procedure for "cable miswrap" call for the cable to be lowered to clear the tangle. The procedures for a bottomed-dome light is to raise the aircraft until the dome is off the bottom.

rgencies in the SH-60F

We couldn't lower the dome because it was on the bottom, so we decided to dial up our coupled-hover altitude to get it off the bottom, and then lower the dome to clear the bird's nest.

I began slowly dialing up our hover altitude from 70 feet through 140 feet and steadied out at the coupled maximum of 200 feet. The bottomed-dome light did not extinguish, but the cable was showing tension, which indicates the dome was off the bottom. We decided to manually lower the cable to clear the tangle.

By this time, we had told our playmate about the problem, and the other helo came over to our position and entered an orbit. The crew helped by offering suggestions and handling all our outside communications while we dealt with the emergency.

As we manually lowered the cable, the crewman kept noticing miswraps on the drum until we read 376 feet of extended cable. The crewmen raised the cable slowly, using AC auxiliary raise. On the way up, the cable tangled again, which the crewman cleared by manually lowering the cable once again. He elected to hand-crank the cable up the last 10 feet and then seated the dome.

With the emergency over and the dome recovered, we headed back to the boat and landed.

If we had taken the time to brief the depth at which we would dip, we would have found that, on the average, the Arabian Gulf is about 150 feet deep, and no deeper than 200 feet. Where we had the emergency, it was about 170 feet deep. Since this figure is only an average, it could be deeper or shallower than 170 feet at any given point around the sounding on the chart. The bottoming of the dome most likely contributed to the cable tangling on the drum.

Good crew coordination at the time of the emergency helped us recover the dome and avoid a mishap, but a part of that crew-coordination—proper mission planning—was missing before we ever launched.

Ltjg. Conner flies with HS-6.

Ready to Lead, Sir!

Holding up a written note, Dash 3 was able to explain that they had an electrical fire in the cockpit...

by Lt. Tim Ketter

AS A WINGMAN, YOU NEVER KNOW WHEN you might have to assume the lead, so you better have a game plan. We had to deal with an unexpected lead change on a flight to Hawaii.

The morning started with a 0600 brief for the first leg of our annual weapons det to Barber's Point. We would be flying the first leg from Atsugi to Wake Island, and we would rendezvous in the middle of the Pacific Ocean with a KC-135 to refuel. The tanking point was also the halfway point, and if we had any problems we would RTB to Atsugi. We were going as a four-plane, with the XO as lead. We were Dash 2 and the alternate lead.

Other than having to launch as singles because of the weather, the flight went as briefed. We joined up as we headed out over the Big Blue on what was becoming a beautiful day.

About 30 minutes before meeting the KC-135, Dash 3 joined on us. I could see they had their oxygen masks on, and I thought they had an electrical problem and were troubleshooting. We passed this info to lead, and Dash 3 joined on him. Holding up a written note, Dash 3 was able to explain that they had an electrical fire in the cockpit, but they were OK.

We were now talking to the KC-135, and lead decided that the flight would tank before returning to home base. We then headed back to Japan.

About two hours from Atsugi, Dash 3 regained his backup radio but it was locked on Guard. He told us his status. They had essential power, but no ICS or attitude sources. The flight lead asked us to get the weather for Atsugi, and of course, the field was IMC with rain showers in the vicinity. The overcast reached from 800 feet to about 10,000 feet.

My crew started talking about contingencies and what we would do if we had the lead. We wanted to break up the flight into two flights of two as soon as possible because we were currently VMC but could see the weather ahead of us as we approached the Japanese coastline. We were going to request a section no-gyro PAR be broadcast on Guard so that Dash 3 could hear it. Dash 3 would also have to trap on a wet runway using only emergency brakes.

Anyone who has flown in Japan knows that the above requests could cause a meltdown of the unsuspecting Japanese controller, so it is best to get the request in early and often. We had just switched up Tokyo Control and were about 150 miles from Atsugi when the XO told us on tactical that he had just gone single platform and wanted us to take the lead. We took the lead, and the first thing we did was detach the XO and Dash 4. All we had to worry about now was Dash 3 and ourselves.

We put our request in with Tokyo Center and waited. Fortunately, they were

Continued on pg. 33

by Lt. Craig Larson

The Good News Is

The Bad News Is

FLYOFF TIME! A LONG, PAINFUL FOUR-week JTFX off the coast was finally finished. I was just senior enough to snag myself a flyoff spot. I was looking forward to getting home and then going to Cleveland for my POM leave period. The whole squadron was in high spirits about getting off the boat, except for the few who had to walk off.

The day started off with a mini strike into North Carolina, where we dropped blue death and returned to the ship for the MOVLAS OK. With an hour to brief time, I finished packing my bag. The flyoff plan had been to launch aircraft home as soon as the flight deck would allow, about two every 30 minutes. The skipper would be my RIO, thus guaranteeing my aircraft to be in the first section off the deck.

"First off the deck, first home," I thought. My wingman crew were also second-cruise guys.

The brief was thorough and covered the flight plan, divert fields, and emergency procedures. Startup went smoothly, and we taxied to the cat with a full bag of gas. Wham! We were off the front end, into a clearing turn with gear and flaps retracting.

"I'm out of here," I thought, until the master-caution light came on at about three miles. Scanning the caution-and-advisory light panel, I noticed a left fuel-pressure light illuminated. I told the CO I was going to climb to the rendezvous point overhead at a little less than military power. The skipper broke out the PCL, quickly found the section on fuel-pressure malfunctions, and said the only restrictions were to avoid negative G's and to not use the afterburner above 15,000 feet.

"No problem," I thought, "we can get home fast enough at mil."

We climbed to 14,000 feet for the rendezvous. The external tanks were transferring normally and with my wingman in sight, I called for a running rendezvous. I checked my fuel again and noticed that the fuel was coming out of the right wing and not the left, which is usually no big deal in the Tomcat because the tanks do not always transfer at the same rate.

Upon join-up, my wingman told me I was venting fuel at a fairly good rate out of the dump mast. I double-checked the dump switch in the off position. After one or two minutes, my wingman advised us that fuel continued to

stream behind the jet. At this point, I pulled the fuel-control circuit breaker to see if that would solve the problem, but it didn't.

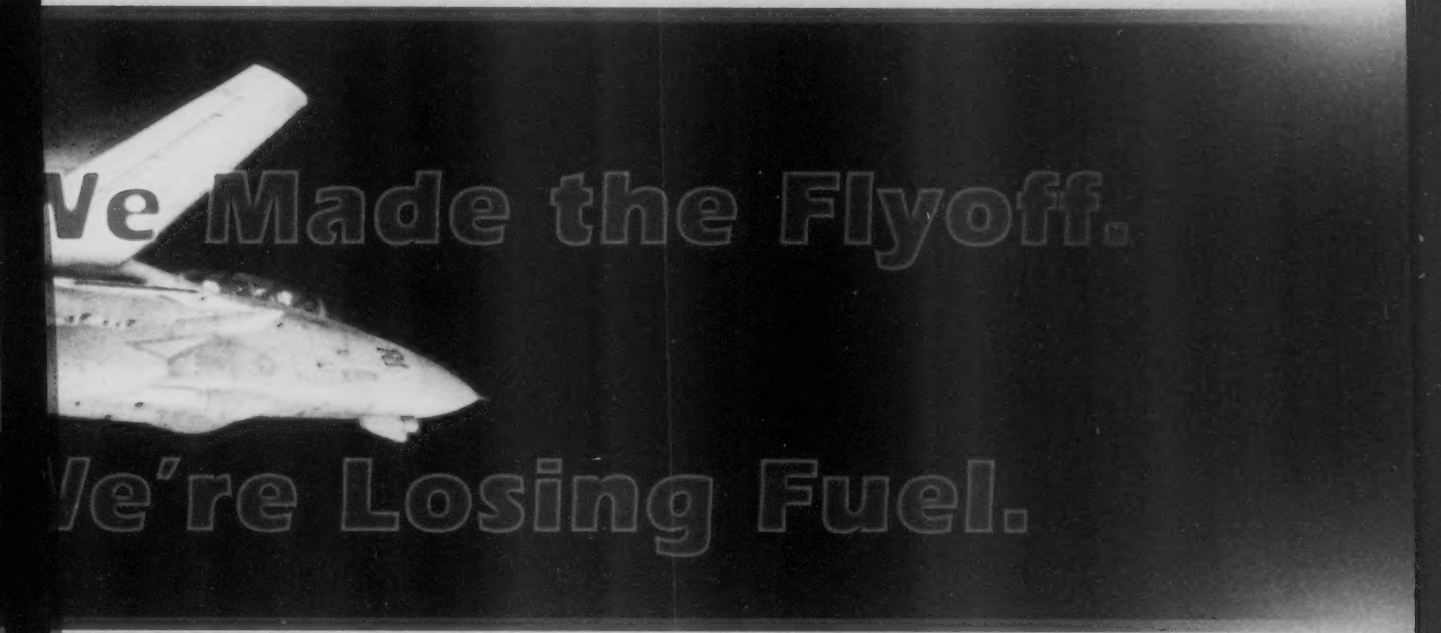
My wingman piped up again, "The fuel seems to be coming out of the right vent mast, the dump mast and from under the left engine." He advised us not to use afterburner.

We had not planned on using the afterburner with fuel leaking, but this information clued us into the fact that more fuel was dumping than we had thought. Great, a leak so huge that fuel was spilling out of the engine nacelle.

We accelerated to 400 KIAS, figuring that if we were losing fuel, we should use as much of it as possible to get home. No one objected to getting home a little bit quicker. The fuel on the right side continued to decrease, and the left side remained full. The right wing was empty, and the right fuselage tank had dropped from 6K to 4K of fuel remaining while the left wing still had 2K and the left fuselage had 6K.

We were about 70 miles from NAS Oceana and 65 miles from Cherry Point. We decided to continue to Oceana, which was, after all, our destination. A quick look in the PCL showed a clean bingo number to be about 3.0.

Once again, going through the fuel problem in the PCL, we tried every switch position to transfer fuel from the left side to the right side without success. The fuel on the right tape continued to decrease to 2.5. No problem when the fuel on the right side reaches 2K, the crossfeed valve opens up with the fuel-control circuit breaker reset and allow the fuel on the left side to transfer to the right side. But the fuel on the right side continued to decrease 2.1, 2.0, and 1.9…The right feed window then started to march down with the left fuel tape… 1.7, 1.6… At this point, the skipper saw a small, paved field at our 9 o'clock, at about 15 miles that appeared to have a 6,000-foot runway. He then asked Giant Killer (our controlling agency) the name of the field and for the tower frequency. We decided to declare an emergency as we headed toward the field from FL 190. Idle, boards, and dump the nose as the fuel on the right feed window fell below 900 pounds. Giant Killer supplied the requested information: Manteo Regional Airport, a unicom frequency and 4,300 feet of paved runway. We decided this was as good as it was going to get. Our choice was landing on a tiny strip of pavement or

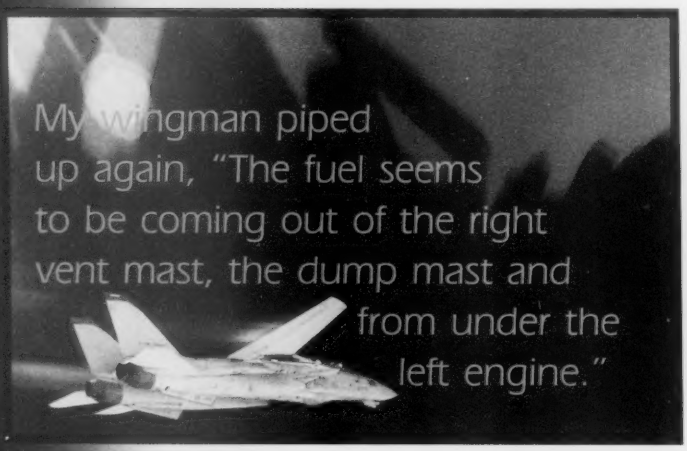


jettisoning our large, gray training aid. The runway did have overruns, which should make the paved surface around 5,000 feet (actually, the 4,300 feet included the overruns, but we didn't know that until after we landed).

I dropped the landing gear at 280 knots and the flaps at 220 knots to get down to an altitude where I could make a safe approach. I was still way too high at four miles on the extended centerline so I made a left 360 over the water. There's no more uncomfortable feeling than turning your back on an airfield during an emergency, but I was too high to land. The right feed window continued to drop to 500 pounds. It was going to be close.

Upon completing the turn, I was still too high to make an approach. We needed to make another 360. The feed window dropped to 400 pounds, and I thought about flaming out. Two 360s complete, and I was finally in a position to make my approach. The skipper gave me a quick version of Air Show Landing 101, which included getting the jet as slow as possible while still controllable, having a large rate of descent, and landing as close to the start of the runway as possible. All of these things would aid greatly in stopping the aircraft (now at 1,000 pounds over max trap of 54,000 pounds) in the allotted distance. [*Remember, nearly 8,000 pounds of fuel were trapped in the left wing and left fuselage.—Ed.*]

On centerline at about two miles, I finished the landing checklist while my wingman reminded me to disengage my DLC to decrease our approach speed. Great idea. My hands were full, and I had not thought about that. Spotting the deck, I aimed to put the jet down midway down the overrun, crabbing heavily to the right to counter a 20-knot crosswind.


My wingman piped up again, "The fuel seems to be coming out of the right vent mast, the dump mast and from under the left engine."

Clearing the trees at the end of the threshold and seeing that I had made it to a paved surface, I went to idle. Then I thought, "Did I go to idle too soon? Will I make the runway? I hope so, because it is too late now."

Using my average deck-spotting skills, I planted the jet at 1,200 VSI, 127 knots (10 knots slower than calculated on-speed), 66 feet from the start of the paved surface. I jumped on the brakes and the anti-skid system worked as advertised. We got the jet slowed down to taxi speed 1,000 feet from the end of the runway and all was well. But I was not home yet, not even close.

A postflight inspection of the aircraft revealed that the male hose that led from the left fuel-boost pump had been dislodged, most likely on the cat shot, resulting in a multiple emergency not covered in the PCL nor in NATOPS. Both emergencies—a fuel-pressure light and a fuel leak—are well covered in the PCL but have some conflicting procedures when both occur at the same time.

For a fuel leak, the procedures say to secure the engine from which the fuel is leaking. If we had secured the right engine for the fuel leak, we would have lost all boosted fuel due to the left fuel-pressure light. We decided to leave the right engine running because we weren't sure if the fuel on the left side would be accessible once we secured the right side. We submitted a NATOPS change to deal with this combination.

We learned a few things from this experience. First, no matter how routine or uneventful a flight may seem, always know where divert fields are and find a couple of suitable emergency fields. Second, having a wingman makes all the difference in the world. He can catch the little things that you may forget in the heat of the moment.

Lt. Larson flies with VF-14.

...I could read the gripes on their kneeboard cards.

How Not To Impress the CO

by Lt. Kenny Setser

A [illegible] LEAD EA-6B IN [illegible] OPERATION [illegible] Southern Watch [illegible] package set [illegible] launch on a sunny morning, we got word the mission was cancelled [illegible] bad weather in country. Instead, we would launch on an alternate mission and [illegible] an hour later, I was ECMO 1 with the skipper in the left seat; we were both pumped for some cloud surfing and raging, as was the rest of the original strike package.

Once airborne, we checked in with Strike to find a clear radial to work, preferably one with some clouds. The strike controller had his hands full managing the mass of airplanes checking in and doing exactly the same thing as us. We were not surprised to see our wingman doing a negative-G check a few miles in front of us with no warning from the controller.

As we followed our wingman, I tried making radio contact with him on our squadron common frequency without success. Finally, I asked the Strike controller to help us by asking our wingman to come up our base frequency to make it easier to rendezvous. We were sure he had not heard our calls on base and had no idea we were approaching his five o'clock as he continued making violent, high-G maneuvers.

Once the Strike controller got him to call me on base, I told his ECMO 1, "I'm at your five o'clock, about one mile. We'll join on you."

To which he replied, "Visual."

Imagine my surprise as he did a break turn to the right as we approached to within a couple hundred feet of him, and he flew directly across our flight path. The skipper reacted and time compression took over. He raised the nose and banked left to avoid colliding with the four helmets that filled our windscreen. I could have done the backseaters' maintenance debriefs since I could read the gripes on their kneeboard cards.

Once we were clear, the skipper dumped the nose in order to keep the other jet in sight. He was now on our right side, and it is hard for a pilot to see anything low and to the right in the Prowler.

It was quiet for the next few minutes as we got our collective breath back. Once the lead pilot saw us on the left, we continued the flight and knocked out some much-anticipated section approaches.

What happened? How could a crew report seeing you then break into you and nearly hit you? The answer lay in the cockpit switchology of the offending jet. ECMO 1 was up button 20, but the preset frequency was wrong, so he had his backseaters tune the back radio to the correct frequency. But the pilot had this radio deselected, so he didn't hear us call our position, and he didn't hear his ECMO 1 say he had seen us. Their ECMO 3 did hear our position call but could not see us and called for a break turn to the right thinking it would help the rendezvous. It was an iffy call at best when you know someone is nearby but cannot see them.

Make sure pilots can hear critical communications, particularly those pertaining to other jets within one mile! Also, in the EA-6B community we always brief that a pilot will honor any ECMO's call to turn to avoid an unsafe situation. However, in this case, it was a blind call to break, which created the unsafe situation, rather than avoiding one—not what we had in mind when we briefed. Careful use of this power is essential. For our part, we could have made more certain we had the other jet's attention and that they could see us before we got closer. We also might have widened the closure angle to avoid "sneaking up" on their five o'clock.

If you think another jet may be in your vicinity, it's time to knock off maneuvers, stay predictable, and catch sight of your playmate.

Lt. Setser flies with VAQ-135.

Ready To Lead, Sir! continued from page 27.

ready that day and gave us everything we needed. By the time we switched to Yokota Approach (USAF controllers), the short-field and mid-field gear were in battery at Atsugi and the PAR controller was standing by on Guard. We dirtied up the flight at 10,000 feet because we were VMC and were not sure where we would break out of the weather. It turned out to be another of the many good decisions we made that day.

As we went into the overcast, I could see Dash 3 holding on for all he was worth. It was pretty rough for about two minutes but he did a great job and never lost us. We did not break out until 600 feet, but we were lined up on the rabbit lights, the Japanese controller had done his job, we kissed off the other crew, and then we watched and waited.

Dash 3's hook skipped the short-field gear, but we all breathed a sigh of relief when we saw him engage the mid-field gear and roll to a stop. The remaining three aircraft recovered uneventfully.

On postflight, we learned the electrical fire had been caused by an electric cooling fan burning out and that, in turn, caused the COTAC's multi-purpose display to overheat. There was no significant damage to the aircraft.

We had begun to play the "what if" game in our cockpit and had a plan ready when we had to assume the lead. I learned some good lessons that day.

The standard join-up-and-shut-up mentality would have put us behind the eight ball, and would have put Dash 3 in an even worse position. If you are VMC, do everything you can to stay VMC. Take care of everything you can while VMC, because if you go IMC, the simple sometimes becomes the impossible. If you have a strange request because of an emergency, declare the emergency to get priority handling, then repeat your request with every controller you talk to so you are sure he has it right.

Lt. Ketter flies with VS-21.

On Cat 1

Coming Attractions for August

- **Land! We're on Fire!**
- **We Nearly Kippered Ourselves in Norway**
- **I Almost Hit My Lead**

Stork with help from flea presents:

BROWNSHOES IN ACTION COMIX

"The kind real aviators like"

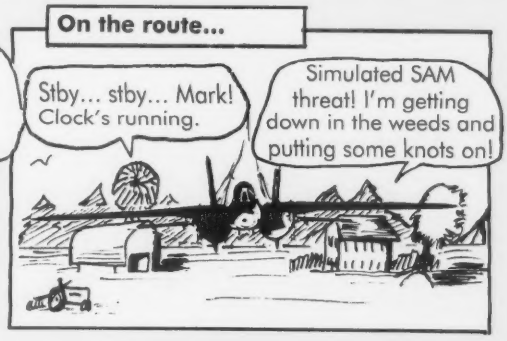
Contributed by Lt. Ward Carroll, VF 32

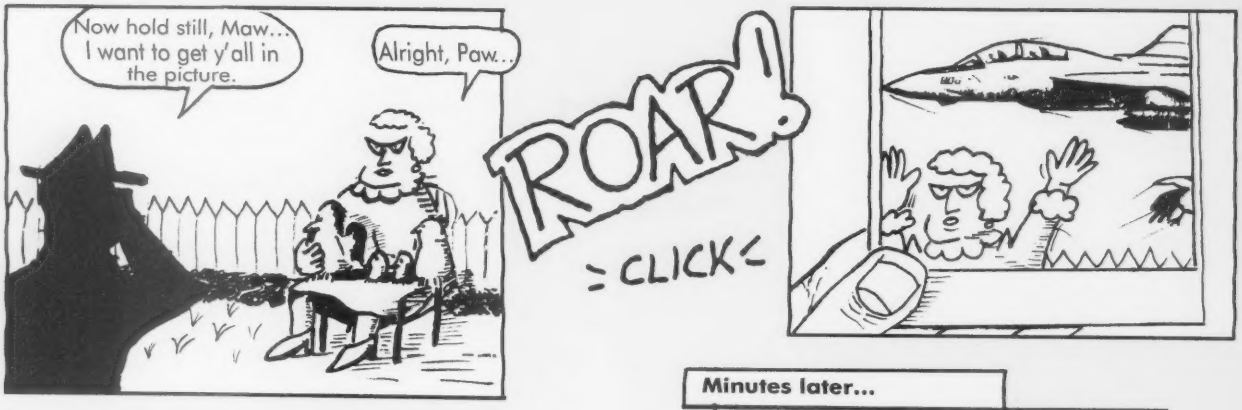
Classic

March 1988

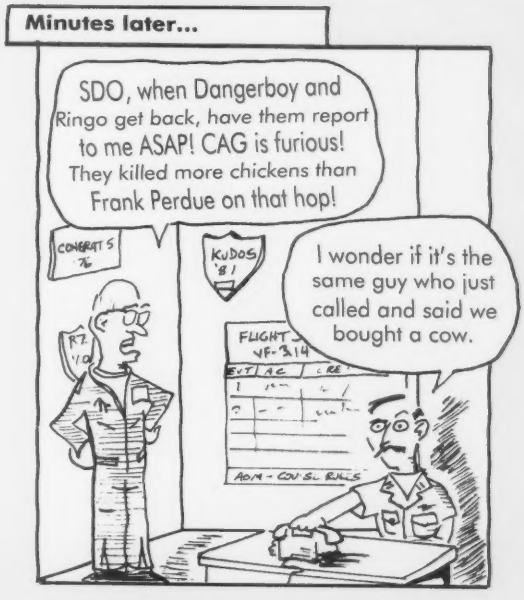
I'll tell you what "Ringo," with all the restrictions put on these low-levels they're not even fun anymore.
I know! Not to mention it's impossible to get any kind of real-world training out of them.
Meticulous Planning
VR-1234
VR-1234F

It's up to us to ensure we develop our skills as we see fit! If we're going to defend our country, we need to always be at our best!
AMEN! Otherwise, the freedom our forefathers handed down may be in jeopardy! ...also low-levels will be real boring.





Hey, those people are waving to us!
The American farmer is the biggest patriot known to this country! They love us! I'll tap burner for 'em.


Minutes later...
SDO, when Dangerboy and Ringo get back, have them report to me ASAP! CAG is furious! They killed more chickens than Frank Perdue on that hop!
CONGRATS
KUDOS '81
I wonder if it's the same guy who just called and said we bought a cow.
FLIGHT VF-314